

Rey Morales Serves on Army Science Board

When Reynaldo Morales goes on travel, the reason for his trip may be quite different from his daily work in STB-Planning. He's a member of the Army Science Board, and each year, he is involved in a high-level military research project.

Morales earned a doctorate in physics from the University of Texas at Austin. Before he became involved in planning, his research at the Laboratory concerned experimental high-pressure equation-of-state work.

Three years ago, he received an invitation to join the Army Science Board. He doesn't really know who suggested his name, although he suspects that it was someone in Washington. He accepted the invitation, and for three years now, he has found the work "really, really interesting."

The Army Science Board includes 50 to 60 civilian scientists and engineers plus several retired military people—often two-, three-, and four-star generals—in related fields. These people come from all over the United States. Some are in academia; some work in the private sector; and some are employed at the national laboratories.

Each year, the Army assigns a major study to the board. The first project in which Morales participated was "a small-arms study." Board members researched the capability of existing U.S. manufacturers and suppliers to produce small arms for the Army. They weighed the relative merits of guaranteeing established companies a certain level of demand vs. shifting to less expensive products from companies that did not insist on guarantees.

The next year, the board took on a mine-detection study.

"There are 8 million mines out there," Morales said. They pose a significant danger in countries ranging from Mozambique to Ecuador.

The Army wants to improve its capability to detect mine fields, pass through them rapidly, and disable and dispose of the mines. Metal mines are relatively easy to detect, but plastic mines now exist as well. Many countries are involved in the production and sale of these lethal weapons.

This year, the board is working on a project requested by Claude M. Bolton Jr., assistant secretary of the Army. He has asked that the board "define major challenges and possible technology solutions" for the Army as it will exist in the timeframe from 2015 to 2025.

The board has divided its members into seven teams, and each team has created its own work schedule. Right now, the board is gathering information. Morales is serving on the "Sensor Quality and Integrity" team. Among the challenges the team is researching is "data fusion and integration"—development of the best way to bring together sensor information from a variety of sources in space, in the skies, and on the ground. Once information is in hand, the Army wants to organize it and make it rapidly available so that the soldier in the field can benefit.

Other aspects of the current study range from finding technical ways to cut the number of friendly-fire deaths on the battlefield to researching the development of improved technologies for seeing at night and seeing through foliage.

"Some really neat science is being done," Morales said.

Morales usually attends one three-day meeting a month in Washington, D.C. In July, the board holds a two-week

Van de Sompel Honored

Herbert Van de Sompel, team leader of the Digital Library Research and Prototyping Group at the Los Alamos National Laboratory Research Library, will be presented with the Frederick G. Kilgour Award June 23 in Toronto during the annual conference of the American Library Association (ALA).

The Kilgour Award, given for research in library and information technology, is sponsored by the OCLC Online Computer Library Center, Inc., and the Library and Information Technology Association, a division of the ALA.

Larry Woods, chairman of the award committee, said the committee "was delighted to acknowledge the significant work of Dr. Van de Sompel, whose research has contributed significantly to not one, but two major current developments in our field: linking technologies and metadata harvesting."

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Van de Sompel, who holds master's degrees in mathematics and computer science and a doctorate in communication science from Ghent University in Belgium, will receive \$2,000, an expense-paid trip to the ALA conference, and a citation of merit in conjunction with the award.

Van de Sompel and a colleague, Patrick Hochstenbach, made use of Van de Sompel's doctoral research in creating SFX, a system that uses information passed from one system to create locally appropriate related web links to other systems. The SFX system is now in use in hundreds of libraries all over the world.

A key element of the SFX linking architecture is the OpenURL, a method for passing bibliographic information from one information system to another, encoded in a URL. OpenURL is now being standardized (an effort in which Van de Sompel is heavily involved) and shows promise of becoming a key tool in the interoperation of distributed digital library systems.

Van de Sompel has also been one of the leaders of an international effort to devise a protocol by which systems holding descriptive metadata could make that metadata available for harvesting and reuse by other information systems. Originally developed to support the building of union catalogues of metadata derived from distributed e-print archives, the protocol has been generalized through work in the larger digital library world as the "Open Archives Initiative Protocol for Metadata Harvesting."

Asked for comment on the award, Rick Luce, who heads the Research Library, said, "It's fantastic. It's well deserved. It is one of the most prestigious awards in the library industry. It's quite a significant accomplishment."

Notes from Allen

This is a busy time for me. In addition to working on our many programmatic and institutional activities and several 60th anniversary events, I am in the middle of an STB workforce review that involves Interim Laboratory Director Pete Nanos and deputy directors Press and Immele. Eventually, each and every division at the Laboratory will go through such a review, but right now it's our turn.

One issue that will be explored during this review is STB staffing—for example, whether we are adequately staffed to carry out our many responsibilities.

We will also be discussing the selection of a new chief of staff to fill the vacancy that occurred when Stevie Strottman moved to the Physics Division. We have received 31 applications for the position. These people come from many different divisions, and there are excellent candidates. The list includes technical staff members, technicians, specialist staff members, and office support personnel.

A committee that included both STB employees and people from other divisions has completed its review of the applications and made its recommendations of people to interview. I will lead the interview process, and I will make the final selection as soon as possible.

This is the first issue of the new, once-a-month "STB News." I hope this newsletter will help us get to know each other a little better. Over time, it will include items from all of our groups and all job categories. Charmian Schaller, an IM-1 editor assigned to Virgil Sanders, will be writing it. Share your story ideas with her!

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meeting in California to put together the results of its annual study and present a briefing to the Army Chief of Staff. The Army pays all of Morales' board-related expenses, and the Laboratory covers the cost of his time for this public service activity.

"It really is interesting," Morales said. During the small-arms study, he visited manufacturers, firing both .38-caliber revolvers and machine guns. During the land-mines study, he visited an Army laboratory where soldiers worked on attempted detection of simulated mines.

One year, he visited Fort Sill, Oklahoma, where soldiers and Marines do artillery training. He watched new recruits come "right off the bus" and rapidly improve their skills in military technology and teamwork. He said he was impressed by the dedication of these young people.

"It really makes you feel proud," he said.

He visited Fort Benning, Georgia, and got to see the Army Rangers learn such skills as how to parachute into water while carrying heavy packs and how to blow down doors. The soldiers were in "top physical shape," he said. "I was so impressed."

He also enjoys watching the intelligence, skill, and social interplay among high-ranking officers. His work with members of the board has convinced him that the U.S. military does an outstanding job of training generals, putting them in many different positions so that they learn a variety of skills. He is very impressed with their professionalism. Among the most important of their skills, he believes, is the ability to combine the confidence to lead with the willingness to give credit when it is due.